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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/688,006	10/13/2000	Elizabeth Sisley	1142.001US1	9173
21186	7590	01/31/2006	EXAMINER	
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH 1600 TCF TOWER 121 SOUTH EIGHT STREET MINNEAPOLIS, MN 55402			DAY, HERNG DER	
			ART UNIT	PAPER NUMBER
			2128	

DATE MAILED: 01/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/688,006

Applicant(s)

SISLEY, ELIZABETH

Examiner

Herng-der Day

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-11 and 13-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-11 and 13-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is in response to Applicant's Amendment and Response ("Amendment") to Office Action dated May 4, 2005, mailed November 4, 2005, and received by PTO November 30, 2005.

1-1. Claims 1, 5-7, 9, and 13-15 have been amended. Claims 4 and 12 have been canceled. Claims 1-3, 5-11, and 13-16 are pending.

1-2. Claims 1-3, 5-11, and 13-16 have been examined and rejected.

Specification

2. The disclosure is objected to because of the following informalities:

Appropriate correction is required.

2-1. It appears that "I gb", as described in the last line of page 3 in Applicant's Amendment received November 30, 2005, should be "1 gb".

2-2. It appears that "Tasks D₁-D₄ in FIG. 4", as described in the last line of page 4 in Applicant's Amendment received November 30, 2005, should be "Tasks D₁-D₃ in FIG. 4".

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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4. Claims 1-3, 5-11, and 13-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

4-1. The amended claim 1 recites the limitations, “prepartitioning the set of couplings to produce data and control partitions” and “interleaving the preallocated data and control partitions” in lines 8 and 11 of the claim respectively, which do not appear to have support in the original disclosure. For example, as shown in the block 214 of FIG. 2 and described in the specification at page 30, lines 10-11, the method interleaves the data and *code* partitioning. Therefore, producing and interleaving control partition do not appear to have support in the original disclosure.

Furthermore, claim 1 recites the limitation, “preallocating each coupling in the set of couplings to one of the plurality of computing resources” in lines 9-10 of the claim, which does not appear to have support in the original disclosure. For example, as described in the specification at page 29, lines 21-23, “Pre-allocation also has positive and negative categories, similarly capturing *tasks that are required to be allocated* either on or away from, a specific platform”. Therefore, preallocating each *coupling* to computing resource does not appear to have support in the original disclosure.

4-2. The amended claim 9 recites the limitations, “prepartitioning the set of couplings to produce data and control partitions” and “interleaving the preallocated data and control partitions” in lines 9 and 12 of the claim respectively, which do not appear to have support in the

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original disclosure. For example, as shown in the block 214 of FIG. 2 and described in the specification at page 30, lines 10-11, the method interleaves the data and *code* partitioning. Therefore, producing and interleaving control partition do not appear to have support in the original disclosure.

Furthermore, claim 9 recites the limitation, “preallocating each coupling in the set of couplings to one of the plurality of computing resources” in lines 10-11 of the claim, which does not appear to have support in the original disclosure. For example, as described in the specification at page 29, lines 21-23, “Pre-allocation also has positive and negative categories, similarly capturing *tasks that are required to be allocated* either on or away from, a specific platform”. Therefore, preallocating each *coupling* to computing resource does not appear to have support in the original disclosure.

4-3. Claims not specifically rejected above are rejected as being dependent on a rejected claim.

5. Claims 1, 5-7, 9, and 13-15 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

5-1. Claims 1 and 9 recite the limitation “determining a coupling strength” and claims 5-7 and 13-15 recite the limitation “the coupling strength is determined”. However, how to determine a coupling strength is unclear for one skilled in the art based on the disclosure. For example, as described in Table 6 at page 21, a timing strength will have maximum (=10) strength if “Time > minimum” and have low (=1) strength if “Time < maximum”. Therefore, when “minimum <

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Time < maximum”, the timing strength will be both maximum (=10) strength and low (=1) strength. In other words, without undue experimentation, it is unclear for one skilled in the art how to determine a timing strength and then determine a coupling strength.

5-2. Claims 1 and 9 recite the limitation “said couplings including couplings selected from the group comprising: control couplings, data couplings and peripheral couplings”. However, for example, when only peripheral couplings are selected it is unclear for one skilled in the art how to “prepartitioning the set of couplings to produce data and control partitions” based on the peripheral couplings only.

6. Claims 1-3, 5-11, and 13-16 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for “prepartitioning the set of couplings” after coupling strength has been calculated for every coupling as shown in blocks 210 and 212 of FIG. 2 and described in the specification at pages 26-29, does not reasonably provide enablement for “prepartitioning the set of couplings” by only “determining a coupling strength for *a coupling* in the set of couplings” as recited in claims 1 and 9. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims. In other words, “determining a coupling strength for *a coupling* in the set of couplings” does not reasonably provide enablement for “prepartitioning the set of couplings” which depends upon the coupling strength of every coupling.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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8. Claims 2, 3, 10, and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8-1. Claim 2 recites the limitation “interleaving the data and the code segment of each of the components” in line 3 of the claim. It is unclear and indefinite because, as recited in claim 1, “the components having a data and a code segment”. In other words, the data and the code segment of individual component do not exist because all the components together only have a data and a code segment as recited in claim 1.

8-2. Claim 3 recites the limitation “interleaving the data and the code segment of each of the components” in line 4 of the claim. It is unclear and indefinite because, as recited in claim 1, “the components having a data and a code segment”. In other words, the data and the code segment of individual component do not exist because all the components together only have a data and a code segment as recited in claim 1.

8-3. Claim 10 recites the limitation “interleaving the data and the code segment of each of the components” in line 5 of the claim. It is unclear and indefinite because, as recited in claim 9, “the components having a data and a code segment”. In other words, the data and the code segment of individual component do not exist because all the components together only have a data and a code segment as recited in claim 9.

8-4. Claim 11 recites the limitation “interleaving the data and the code segment of each of the components” in line 5 of the claim. It is unclear and indefinite because, as recited in claim 9, “the components having a data and a code segment”. In other words, the data and the code

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segment of individual component do not exist because all the components together only have a data and a code segment as recited in claim 9.

Recommendations

9. For clarification purposes, the Examiner suggests the following replacement.

9-1. In claim 5, the Examiner suggests that “the coupling strength is determined” in line 2 of the claim be replaced with “the coupling strength of the control coupling is determined”.

9-2. In claim 6, the Examiner suggests that “the coupling strength is determined” in line 2 of the claim be replaced with “the coupling strength of the data coupling is determined”.

9-3. In claim 7, the Examiner suggests that “the coupling strength is determined” in line 2 of the claim be replaced with “the coupling strength of the peripheral coupling is determined”.

9-4. In claim 13, the Examiner suggests that “the coupling strength is determined” in line 2 of the claim be replaced with “the coupling strength of the control coupling is determined”.

9-5. In claim 14, the Examiner suggests that “the coupling strength is determined” in line 2 of the claim be replaced with “the coupling strength of the data coupling is determined”.

9-6. In claim 15, the Examiner suggests that “the coupling strength is determined” in line 2 of the claim be replaced with “the coupling strength of the peripheral coupling is determined”.

Applicant's Arguments

10. Applicant argues the following:

10-1. §112 Rejection of the Claims

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(1) “Applicant has amended claims 1, 9, 5-7 and 13-15 to address the items raised in paragraphs 6-1 to 6-4 of the Office Action” (page 9, paragraph 3, Amendment).

(2) “Thus according to table 6, when the timing is at or near the minimum endpoint, the timing strength is 10. When the timing is at or near the maximum endpoint, the timing strength is 1” (page 9, paragraph 4, Amendment).

(3) “Applicant has amended claims 1 and 9 to address the items raised in paragraphs 9-1 to 9-3 of the Office Action” (page 9, paragraph 5, Amendment).

10-2. §102 Rejection of the Claims

(4) “Applicant has amended claims 1 and 9 to include subject matter that has been indicated as allowable” (page 10, paragraph 1, Amendment).

Response to Arguments

11. Applicant’s arguments have been fully considered.

11-1. Response to Applicant’s argument (1). The amendment of claims 1 and 9 does not appear to have support in the original disclosure as detailed in sections 4-1 to 4-3 above.

11-2. Applicant’s argument (2) is not persuasive. Applicant’s argument does not appear to have support in the original disclosure. As described in Table 6 at page 21, a timing strength will have maximum (=10) strength if “Time > minimum” and have low (=1) strength if “Time < maximum”.

11-3. Applicant’s argument (3) is persuasive. The rejections of claims 1-16 under 35 U.S.C. 112, second paragraph, in Office Action dated May 4, 2005, have been withdrawn.

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11-4. Applicant's argument (4) is persuasive. The rejections of claims 1-3 and 9-11 under 35 U.S.C. 102(b), in Office Action dated May 4, 2005, have been withdrawn.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

Reference to Sasagawa et al., U.S. Patent 6,675,155 B2 issued January 6, 2004, and filed May 20, 1998, is cited as disclosing grouping nodes which are coupled in a high coupling strength to each other into a hyper node.

13. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Herng-der Day whose telephone number is (571) 272-3777. The Examiner can normally be reached on 9:00 - 17:30.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: (571) 272-2100.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Kamini S. Shah can be reached on (571) 272-2279. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private

PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Herng-der Day

January 26, 2006

H.D.

*Thay Phan
Thai Phan
Patent Examiner
Art: 2128*